

POWER POOLING IN NETWORK DOWNSTREAM DATA TRANSMISSION

ABSTRACT OF THE DISCLOSURE

Data packets are selected for simultaneous transmission to multiple users using a transmitter with limited transmission power by first establishing transmission power requirements for each user, receiving in a queue a plurality of data packets for transmission to one or more users, and selecting one or more data packets for transmission in a composite burst with cumulative power for the selective packets not exceeding the limited transmission power. Data packets are selected for sequential composite bursts until all data packets in the queue have been transmitted, at which time transmission ceases until more incoming packets arrive at the queue. In selecting data packets for transmission, data packets which have previously been delayed in transmission can be given priority as well as priority based on quality of service subscribed by each user. Additionally a predetermined priority weight can be assigned to data packets and used for selection.

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